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PATENT

Attorney Reference Number 6115-58351-01  
Application Number 09/925,125

**In the Claims:**

Please cancel claims 35, 38, and 70, and add new claims 74 and 75, as follows:

1. (Original) A method of automating a decision-making process related to an organization based on a collection of data reflecting a state of the organization, the method comprising:

selecting discrete coupleable items executable in a computer-implemented workflow environment, wherein the discrete coupleable items encapsulate work associated with activities identified by decomposing the decision-making process; and

creating an executable workflow by coupling a plurality of the discrete coupleable items, wherein at least one of the discrete coupleable items defines a query to be run against the collection of data, at least one of the discrete coupleable items defines an analysis to be performed based on results of the query, and at least one of the discrete coupleable items defines distribution of information based on the analysis to one or more destinations.

2. (Original) The method of claim 1 further comprising:  
scheduling the executable workflow for automatic execution.

3. (Original) The method of claim 2 wherein scheduling comprises:  
specifying a condition as a state change in data of the data collection serving as input to the decision-making process; and  
responsive to determining the condition has occurred, automatically executing the workflow.

4. (Original) The method of claim 1 further comprising:  
scheduling the executable workflow for automatic initiation upon detection of a specified state change in the collection of data

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5. (Original) The method of claim 1 wherein the executable workflow comprises at least one template having unbound values.

6. (Original) The method of claim 1 wherein the executable workflow comprises at least one conditional branch.

7. (Original) The method of claim 1 wherein the executable workflow comprises at least one gate.

8. (Original) The method of claim 1 wherein the executable workflow is sharable among a plurality of users.

9. (Original) The method of claim 1 wherein the collection of data comprises a data warehouse.

10. (Original) The method of claim 9 wherein the data warehouse comprises databases having disparate schema.

11. (Original) The method of claim 1 further comprising:  
executing the executable workflow.

12. (Original) The method of claim 11 further comprising:  
tracking workflow execution duration time.

13. (Original) The method of claim 11 further comprising:  
during execution of the executable workflow, responsive to detecting a plurality of inputs to an item within the workflow, instantiating multiple instances of the item for accepting the inputs.

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14. (Original) The method of claim 1 wherein the executable workflow is operable to specify a proposed course of action to avoid a potential problem.

15. (Original) The method of claim 14 wherein the executable workflow is operable to specify a proposed course of action to avoid a budget overrun.

16. (Original) The method of claim 1 wherein the executable workflow is operable to identify a problem and provide a recommendation for avoiding the problem.

17. (Original) The method of claim 1 further comprising:  
specifying a condition to trigger automatic initiation of execution of the executable workflow in the computer environment.

18. (Original) The method of claim 1 wherein at least one of the destinations represents a decision-maker.

19. (Original) The method of claim 1 wherein at least one of the destinations is associated with a wireless device.

20. (Original) The method of claim 1 wherein at least one of the destinations is an email address.

21. (Original) The method of claim 1 wherein at least one of the destinations is associated with web page.

22. (Original) The method of claim 1 wherein at least one of the destinations is associated with database.

23. (Original) The method of claim 1 wherein at least one of the items defines a presentation event to a decision-maker.

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24. (Original) The method of claim 23 further comprising:  
tracking a decision-maker's reaction to the presentation event.
25. (Original) The method of claim 1 wherein the executable workflow comprises a  
metasequence.
26. (Original) The method of claim 1 further comprising:  
persisting the interim state of the workflow;  
providing access to the interim state of the workflow to a decision-maker.
27. (Original) The method of claim 26 wherein providing access comprises providing  
a hyperlink to the interim state of the workflow.
28. (Original) The method of claim 1 wherein the executable workflow distributes a  
link to interim processing performed during execution of the workflow.
29. (Original) The method of claim 1 wherein the executable workflow performs  
closed-loop processing without further user input.
30. (Original) The method of claim 1 wherein the executable workflow reflects best  
practices of the organization.
31. (Original) The method of claim 1 wherein the executable workflow reflects best  
practices of the organization as determined by repeated execution and refinement of the  
workflow.
32. (Original) The method of claim 1 wherein the executable workflow distributes  
information based on stored user permissions.
33. (Original) The method of claim 1 wherein the executable workflow selectively  
distributes exceptions when detected in the collection of data.

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34. (Original) The method of claim 1 further comprising:  
publishing the executable workflow to a plurality of users of the computer environment.

35. (Canceled)

36. (Original) A computer-implemented method of generating and distributing information based on a collection of data, the method comprising:  
creating an executable sequence of associated discrete items executable in a computer environment, wherein at least one of the items defines a query to be run against the collection of data, at least one of the items defines a distribution directive operable to distribute information based on the query to at least one destination, and at least two of the items are coupleable; and  
scheduling the executable sequence for automatic execution in the computer environment, wherein at least one of the coupleable items is denoted as coupled to another of the coupleable items.

37. (Original) A computer-readable medium comprising computer-executable instructions for performing the method of claim 36.

38. (Canceled)

39. (Original) A computer-implemented method of defining query-based processing to be performed for a collection of data, the method comprising:  
selecting a plurality of processing directives, wherein at least one of the processing directives is a query, and at least two of the processing directives are coupleable; and  
associating the processing directives into an executable sequence operable to generate and distribute information from the collection of data when executed, wherein at least a first of the processing directives is denoted as coupled to at least a second, other of the processing directives.

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40. (Original) The method of claim 39 further comprising:  
scheduling the executable sequence for automatic periodic execution.

41. (Original) The method of claim 39 wherein the processing directives are processed by processing directive coordinators, at least one of which is operable to provide results in markup language and at least one of which is operable to process results in markup language as input.

42. (Original) The method of claim 39 further comprising:  
during execution of the executable sequence, as a result of processing the first processing directive, generating a result set; and  
during execution of the executable sequence, coupling the second processing directive to the first processing directive by providing an identifier identifying the result set.

43. (Original) The method of claim 39 wherein at least one of the processing directives is operable to accept input from another processing directive denoted as coupled thereto and distribute information to one or more destinations based on the input from the other processing directive.

44. (Original) The method of claim 43 further comprising:  
scheduling the processing directives for periodic execution to provide notifications of data exceptions in the data collection to at least one of the destinations.

45. (Original) The method of claim 43 wherein the processing directive operable to distribute information is operable to distribute information to a web site, the method further comprising:  
scheduling the processing directives for periodic execution to update the web site.

46. (Original) The method of claim 43 further comprising:  
scheduling the processing directives for periodic execution to automatically order additional inventory responsive to detecting a shortage.

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47. (Original) The method of claim 43 wherein the processing directive operable to distribute information is configurable to distribute information to a variety of destination types.

48. (Original) The method of claim 47 wherein the destination types comprise the following destination types:

a wireless device destination type; and  
an email destination type.

49. (Original) The method of claim 43 wherein  
at least one of the destinations is associated with a user; and  
distribution of at least some of the information directed to the processing directive operable to distribute information is blocked based on stored permissions of the user.

50. (Original) The method of claim 49 wherein  
at least one of the destinations is associated with another user; and  
access to the blocked information is permitted for the other user based on stored permissions of the other user.

51. (Original) The method of claim 43 wherein the sequence produces interim results, the method further comprising:  
storing the interim results; and  
distributing to at least one of the destinations a link by which the interim results can be accessed.

52. (Original) The method of claim 51 further comprising:  
blocking access to at least a portion of the interim results by a user based on stored permissions for the user.

53. (Original) The method of claim 39 further comprising:

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responsive to the associating, when executing the sequence, coupling output of the first processing directive to input of the second processing directives.

54. (Original) The method of claim 39 wherein at least one of the processing directives is operable to select one out of at least two possible next processing directives denoted as coupled thereto during execution to selectively direct execution flow.

55. (Original) The method of claim 39 wherein at least one of the processing directives is operable to filter out information not meeting specified criteria.

56. (Original) The method of claim 39 wherein at least one of the processing directives is operable to filter out information not appearing in a top  $n$  records according to a specified sorting criteria.

57. (Original) The method of claim 39 wherein:  
the sequence comprises at least a query processing directive, an analysis processing directive, and a distribution processing directive.

58. (Original) The method of claim 57 wherein at least one query processing directive and at least one analysis processing directive generate results in a same format, and the analysis processing directive and at least one distribution processing directive accept results in the same format.

59. (Original) The method of claim 58 wherein the format is XML.

60. (Original) The method of claim 39 further comprising:  
when executing the sequence, storing a result set accessible to and of a format processable by the second processing directive to couple the output of the first processing directive to the input of the second processing directive.



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61. (Original) The method of claim 60 wherein the result set is of a markup language format.

62. (Original) The method of claim 60 wherein the result set is of XML format.

63. (Original) The method of claim 60 wherein the result set is accessible to the second processing directive via an identifier identifying the result set.

64. (Original) The method of claim 39 wherein at least one of the processing directives is sharable among a plurality of users.

65. (Original) The method of claim 39 wherein at least one of the processing directives is included in another executable sequence.

66. (Original) The method of claim 65 further comprising:  
accepting user edits to the processing directive to modify execution of more than one sequence.

67. (Original) The method of claim 39 further comprising:  
publishing the executable sequence to a plurality of users.

68. (Original) The method of claim 67 further comprising:  
accepting user edits to the published executable sequence; and  
saving the edited published executable sequence as a separate executable sequence.

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69. (Original) A computer-implemented method of defining query-based processing to be performed for a collection of data, the method comprising:

selecting a set of a plurality of chainable discrete database operation items, wherein the set of chainable discrete database operation items is operable to generate information from the collection of data and at least one of the chainable discrete database operation items is a query; and

associating the chainable discrete database operation items into an executable sequence.

70. (Canceled)

71. (Original) A computer-implemented system for defining query-based processing to be performed for a collection of data via specification of a sequence of loosely-coupled processing directives, the system comprising:

a sequence definer for accepting a set of loosely-coupled processing directives, wherein at least one of the processing directives is a query and stores query results in XML format, wherein at least one of the processing directives is a distribution directive and accepts its input in XML format;

a sequence execution coordinator for coordinating execution of the sequence and coupling the processing directives during execution of the sequence.

72. (Original) A software-based system for defining query-based processing to be performed on a collection of data, the system comprising:

a sequence builder operable to accept a selection of a plurality of processing directives for generating information from the collection of data, wherein at least one of the processing directives is a query and at least one of the processing directives is a template;

a parameter acceptor for accepting parameters to be bound to the template; and

a bindery for associating the processing directives and the parameters into an executable sequence.

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73. (Original) A computer-based system for defining query-based processing to be performed on a collection of data, the system comprising:

means for specifying a plurality of processing directives for generating information from the collection of data, wherein at least one of the processing directives is a query, at least one of the processing directives is a template, and a plurality of processing directives can be selected;

means for accepting one or more parameters to be bound to the template; and

means for combining the processing directives and the parameters into an executable sequence.

74. (New) The method of claim 1 wherein the decision-making process comprises a financial-based decision-making process for the organization;

wherein the executable workflow is operable to identify budget overruns for cost centers;

wherein the collection of data comprises a data warehouse;

wherein the at least one discrete coupleable item defining a query is operable to generate information relating to the cost centers;

wherein the at least one discrete coupleable item defining an analysis is operable to generate information to identify significant budget overruns;

wherein the at least one discrete coupleable item defining distribution is operable to distribute information indicating the identified budget overrun to a manager responsible for the cost center;

and wherein the method further comprises:

scheduling the executable workflow for periodic execution; and

executing the executable workflow to generate automatic notifications to the manager responsive to detecting a budget overrun.

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75. (New) The method of claim 36 wherein the at least one item defining a query is stored and is operable to periodically query the collection of data according to the stored query to generate one or more result sets;

wherein at least one item defines a stored analysis directive operable to analyze the result sets according to the stored analysis directive to generate one or more refined result sets; and

wherein the at least one item defining a distribution directive is stored and is operable to forward information based on the refined result sets according to the stored distribution directive.